**Part 1: Refresher**



**Linear Functions Boot Camp!** Name:

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Match each line in the figure with an equation from the right.





**Part 2: Linear Functions: Graphically & As Equations**

***Section A: Graphing*** – There are two methods: (a) Plot a given point and use the slope to count up/down/over to get more points. (b) Make a table and plug in x-values to get y-values.

#1 through #4: Practice using the counting method.



***Section B: Equations***

For slope-intercept form: you need to calculate either the slope or the y-intercept.

5. Write the equation of the line that passes through:

a) (6, 8) and (10, 20) b) (-9, 10) and (5, -8)

You may need to re-write equations from a different from into slope-intercept form.

6. Re-arrange these into “y =”:

a) 6x – 10y = -3

b) -4x – y + 2 = 6

c) y – 7 = 3(x + 1)

**Part 3: Parallel and Perpendicular Lines**

1.



2. Write the equation of the line parallel to y = 5x + 2 that passes through (6, 7).

3. Write the equation of the line perpendicular to y = -7x + 1 that passes through

(14, 21).

4. Write the equation of the line parallel to 7y + 8x – 9 = 0 that has the same

y-intercept at 50x – 80y = 160.

5. Write the equation of the line perpendicular to -3x + 2y – 16 = 4 that passes through (-6, 4).

6. The lines in the figure are perpendicular. If the slope of one of the lines is -2, find the exact coordinates of the intersection of the two lines. (By “exact”: leave answer as a fraction!)



7. The function Slope(x) takes an equation of a line as its input and outputs the slope of that line.

a) Find Slope(3x + 7y = 21).

b) Make up an equation for a line d such that Slope(d) = .

c) Lines e and f are perpendicular. Find the value of Slope(e) x Slope(f).